

**Claims**

1. F<sub>v</sub> antibody construct having binding sites for an CD16 receptor and a CD30 surface protein.
2. F<sub>v</sub> antibody construct according to claim 1, wherein the CD16 receptor is derived from NK cells.
3. F<sub>v</sub> antibody construct according to claim 1 or 2, wherein the CD30 surface protein is derived from Hodgkin's disease or Reed-Sternberg cells.
4. F<sub>v</sub> antibody construct according to any of claims 1 to 3, wherein one binding site is present each.
5. F<sub>v</sub> antibody construct according to claim 4, encoded by the expression vector pKID16-30 (DSM 12960).
6. F<sub>v</sub> antibody construct according to any of claims 1 to 3, wherein two binding sites are present each.
7. Expression vector, coding for the F<sub>v</sub> antibody construct according to any of claims 1 to 6.
8. Expression vector according to claim 7, namely pKID16-30 (DSM 12960).
9. Transformant, containing the expression vector according to claim 7 or 8.
10. A method of producing the F<sub>v</sub> antibody construct according to any of claims 1 to 6, comprising culturing the transformant according to claim 9 under suitable conditions.

11. Kit comprising:
  - (a) an F<sub>v</sub> antibody construct according to the invention  
and/or
  - (b) an expression vector according to the invention,  
and
  - (c) common auxiliary substances, such as buffers,  
solvents, carriers, controls and markers,

wherein one or more representatives of the individual components may be present.

12. Use of the F<sub>v</sub> antibody construct according to any of claims 1 to 6 for lysis of cells expressing CD30 surface proteins.
13. Use according to claim 12, wherein the cells are tumor cells.
14. Use according to claim 13, wherein the tumor cells are Hodgkin's disease or Reed-Sternberg cells.